Final Draft
Vermont Rail Plan

Vermont Rail Advisory Council Meeting
March 25, 2021
Background

- Good planning makes for efficient passenger and freight rail for Vermont—and making best use of each mode saves the State money.
- FRA requires a State Rail Plan at minimum every four years to be eligible for certain rail grants.
- FHWA requires a State Freight Plan every five years to obligate Freight Formula funds.
Freight Rail is Important

- Vermont is linked worldwide by short line railroads and then Class I rail networks.
- Tonnage inbound to Vermont increased from 14% in 2011 to 24% in 2018.

Note: Map only shows inbound and outbound rail freight movements. Another 4 million tons (58% of total) moved through Vermont by rail in 2018.
Initiatives can be projects, but also new computer systems, signal updates, improved coordination, etc. that increase efficiency. These operational and policy initiatives are particularly important given limited funding.
Modeling Some Passenger Rail Initiatives

Background Factors

• Economic & demographic trends
• Committed projects
• How quickly will rail service return to 2019 levels?
• How long until passenger rail demand returns to pre-COVID ridership levels?

Note: It is repeatedly clarified in Plan material that initiatives are listed only as an exploration of analysis and discussion.
## Passenger Rail Initiatives Modeled

### Rail Scenarios

<table>
<thead>
<tr>
<th>Vermonter Corridor</th>
<th>Ethan Allen Express / Western Corridor</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Build</td>
<td>No Build (Ethan Allen Express extension to Burlington included)</td>
</tr>
<tr>
<td><em>Vermonter</em> train extension to Montreal, one round trip per day</td>
<td></td>
</tr>
<tr>
<td><em>Valley Flyer</em> train extension, one round trip from Greenfield, MA to White River Jct.</td>
<td></td>
</tr>
<tr>
<td>Twice-daily <em>Vermonter</em> service, with both terminating in Montreal</td>
<td></td>
</tr>
<tr>
<td>Connection to Boston at Springfield, MA from <em>Vermonter</em> serving Montreal</td>
<td></td>
</tr>
<tr>
<td>79 mph service on <em>Vermonter</em> to Montreal</td>
<td></td>
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<tr>
<td></td>
<td>79 mph service on <em>Ethan Allen Express</em></td>
</tr>
<tr>
<td></td>
<td>Extend <em>Ethan Allen Express</em> to Essex Junction to connect with <em>Vermonter</em> to Montreal</td>
</tr>
</tbody>
</table>
## Passenger Rail Modeling – Medium Growth Results

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Description</th>
<th>2019 Ridership</th>
<th>2040 Ridership</th>
<th>% Change</th>
<th># Change</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Vermont – No Build</strong></td>
<td>One train per day between Washington &amp; St. Albans</td>
<td>78,673</td>
<td>89,400</td>
<td>14%</td>
<td>10,727</td>
</tr>
<tr>
<td><strong>Vermont day train extension to Montreal</strong></td>
<td>One train per day to Montreal</td>
<td>78,673</td>
<td>196,000</td>
<td>149%</td>
<td>117,327</td>
</tr>
<tr>
<td><strong>Twice-daily Vermont service terminating in Montreal</strong></td>
<td>Two trains per day to Montreal</td>
<td>78,673</td>
<td>382,600</td>
<td>386%</td>
<td>303,927</td>
</tr>
<tr>
<td><strong>Extension of one Valley Flyer train to White River Jct.</strong></td>
<td>One Knowledge Corridor train extended from Greenfield, MA</td>
<td>0</td>
<td>33,100</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>Connection to Boston at Springfield, MA from Vermont serving Montreal</strong></td>
<td>One per day between Vermonter &amp; potential Springfield-Boston service</td>
<td>78,673</td>
<td>212,600</td>
<td>170%</td>
<td>133,927</td>
</tr>
<tr>
<td><strong>79 mph service on Vermont to Montreal</strong></td>
<td>Increase speed where feasible</td>
<td>78,673</td>
<td>228,600</td>
<td>17% (over Montreal extension)</td>
<td>149,927</td>
</tr>
<tr>
<td><strong>Ethan Allen Express – No Build (includes Burlington extension)</strong></td>
<td>One train per day between NYC &amp; Burlington</td>
<td>16,561</td>
<td>37,300</td>
<td>125%</td>
<td>20,739</td>
</tr>
<tr>
<td><strong>Additional route Albany - Burlington via Bennington</strong></td>
<td>One train per day serving new route in addition to existing Ethan Allen Express</td>
<td>16,561</td>
<td>67,400</td>
<td>307%</td>
<td>50,839</td>
</tr>
<tr>
<td><strong>79 mph service on Ethan Allen Express</strong></td>
<td>Increase speed where feasible</td>
<td>16,561</td>
<td>39,100</td>
<td>136%</td>
<td>22,539</td>
</tr>
<tr>
<td><strong>Extend Ethan Allen Express to Connect to Vermonter in Essex Junction</strong></td>
<td>Includes Ethan Allen &amp; Vermonter to Montreal (net increase)</td>
<td>95,234</td>
<td>238,500 (5,200)</td>
<td>150%</td>
<td></td>
</tr>
</tbody>
</table>

*See Technical Memo #3 for details*
From Goals to Potential Initiatives
2020 Rail Plan Goals (Minor changes from 2015)

- Maintain existing system (State of Good Repair)
- Expand capacity to accommodate growth
- Increase rail system use (freight & passenger)
- Fund the rail system adequately and sustainably
- Improve intermodal connectivity (freight & passenger)
- Act on opportunities for ancillary economic development
- Enhance safety, security & resiliency

• Aligned with other efforts
Analysis Supported Informed Decisions

- **Safety**
  - In an area with existing crash locations or identified safety issue

- **Asset Condition**
  - Maintains or improves asset conditions

- **Connectivity**
  - Enhances connectivity for bicyclists, pedestrians, transit, or freight modes

- **Economic Access**
  - Promotes economic competitiveness and/or reduces costs

- **Resiliency**
  - Helps accommodate disruptions and changes in network demand

- **Environment**
  - Reduces vehicle miles traveled or vehicle emissions

- **Community**
  - Improves sense of community or endorsed by the RPC/municipality

- **Mobility**
  - Improves network role of rail beyond Vermont

- **Health Access**
  - Increases access to health facilities

*20 points each - 10 points each - 5 points each*
New Analysis

Rail Plan Technical Memoranda:

• Tech Memo 1 – Existing Conditions;
• Tech Memo 2 – Commodity Flow and Economic Futures;
• Tech Memo 3 – Vision, Goals, Needs and Potential Initiatives *(Updated!)*
  • *Expanded info about safety, climate and resiliency, among other updates*
• Tech Memo 4 – Passenger Rail Ridership Forecasting
• Tech Memo 5 – Prioritization and Recommendations *(New!)*
  • *Includes prioritization methodology, funding, cost estimates, and implementation*
• Tech Memo 6 – Public Participation and Comments *(New!)*
  • *Includes comments received and responses*
First Priority Recommendations

Coordinated safety improvements

- Phased deployment of gates/flashers at existing and planned Amtrak public road grade crossings
- Includes Section 130 efforts
# Second Priority Recommendations

<table>
<thead>
<tr>
<th>RECOMMENDATION</th>
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<tbody>
<tr>
<td>Burlington Rail Yard Enterprise project</td>
</tr>
<tr>
<td>Seek grants and innovative funding approaches for freight and passenger rail</td>
</tr>
<tr>
<td>GMRC Bridges and Track Upgrades</td>
</tr>
<tr>
<td>WACR Connecticut River Bridges and Track Upgrades</td>
</tr>
<tr>
<td>Upgrade WACR Montpelier &amp; Barre Sub. Bridges and Track up to 286k standard</td>
</tr>
<tr>
<td>Maintain and improve connectivity to regional and Class I railroads</td>
</tr>
<tr>
<td>Improve transit, bicycle, and pedestrian connections to Amtrak trains. Wayfinding</td>
</tr>
<tr>
<td>Work to reduce causes of delay within and beyond Vermont’s borders</td>
</tr>
<tr>
<td>Maintain State-owned freight trackage at FRA Track Class 2 or better and State-owned passenger rail trackage at Class 4 where appropriate</td>
</tr>
<tr>
<td>Publicize existing voluntary efforts of railroads and encourage “freight as a good neighbor”</td>
</tr>
</tbody>
</table>
### Third Priority Recommendations

<table>
<thead>
<tr>
<th>RECOMMENDATION</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preserve and fully use industrial land parcels with access to rail sidings</td>
<td></td>
</tr>
<tr>
<td>Passenger service on the Albany-Bennington-Burlington to supplement Ethan Allen Express service first needs VTR track upgrade between Manchester and Rutland</td>
<td></td>
</tr>
<tr>
<td>Ethan Allen Amtrak service extension to meet Vermonter; first needs Burlington to Essex Jnct./NECR track improvements</td>
<td></td>
</tr>
<tr>
<td>Publicize intermodal options to potential shippers. Facilitate development of additional freight transload facilities.</td>
<td></td>
</tr>
<tr>
<td>Maintain and modernize freight rail yards</td>
<td></td>
</tr>
<tr>
<td>Increase resilience of rail system to make critical infrastructure more resilient now and to prepare for increasing storm severity</td>
<td></td>
</tr>
</tbody>
</table>
Themes Among > 50 Comments Received

- Environmental
- Multi-Modal
- Planning
- Infrastructure
- Publicity
- Safety
- Service
Summary of Comments

• **Service** – Ideas proposed schedule changes and extensions of services
• **Environmental** – Reduce greenhouse gas emissions and use of fossil fuels; better manage health impacts of rail operations and maintenance
• **Safety** – Improve safety at rail crossings including where there are many bicyclists or people in wheelchairs. Improve communication about and protection regarding HAZMAT while acknowledging Federal exemptions and voluntary actions of railroads.
• **Multi-Modal** – Improve connections of rail service with safe, convenient bicycle access, public transit, and pedestrian amenities
• **Publicity** – Emphatically promote Amtrak service as it resumes and in an ongoing and varied manner.
• **Infrastructure** – Upgrade assets to increase safety, comfort, operations, tourism, and freight competitiveness
• **Planning** – Transit-Oriented Development and further use parcels with freight rail access. Explore opportunities from COVID-19 including implications of population shifts
Summary of Changes

• Information added to address issues raised by stakeholders, particularly on **safety and GHG reduction**

• Refined initiatives from comments (e.g., **separating freight and passenger elements of Albany-Bennington-Burlington route**) and review of analysis (e.g. **improve on-time performance**)

• Expanded future studies (e.g. **service development plan**, public participation on **station needs**, expanded **resilience analysis**)

• Added cost, funding, and implementation information
Might We Afford the Recommendations?

• Quite possibly yes, if historic funding levels hold reasonably and these preliminary cost estimates aren’t too far off.

<table>
<thead>
<tr>
<th>PERIOD</th>
<th>PASSENGER CAPITAL PROGRAM</th>
<th>FREIGHT CAPITAL PROGRAM</th>
<th>TOTAL CAPITAL PROGRAM</th>
<th>STATE FUNDING SHARE</th>
<th>FEDERAL FUNDING SHARE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Short-Term (next 5 years)</td>
<td>$15 million</td>
<td>$29 million</td>
<td>$44 million</td>
<td>$9 million</td>
<td>$35 million</td>
</tr>
<tr>
<td>Long-Term (years 6-20)</td>
<td>$99 million</td>
<td>$120 million</td>
<td>$219 million</td>
<td>$44 million</td>
<td>$175 million</td>
</tr>
<tr>
<td>Total</td>
<td>$114 million</td>
<td>$149 million</td>
<td>$263 million</td>
<td>$53 million</td>
<td>$210 million</td>
</tr>
</tbody>
</table>
Freight Rail Program Benefits

- Improved safety
- Growth in amount of freight moved & diversity of shippers/receivers in VT
- Increased system reliability
- Improved air quality
- Economic development
Passenger Rail Program Benefits

- Improved safety and convenience
- More travel options
- Increased system reliability
- Improved air quality and environmental benefits
- Better “last mile” connections and more vibrant communities
Action Request

• VRAC action. Possible starting action language:

   The VRAC recommends that the Secretary of Transportation convey the Rail Plan, with minor modifications submitted by April 8th, to FRA for acceptance.

• Provide any refinements to tech memos #3 and #5 by April 8th

• Watch for the Final Plan and help advance it!
But Wait, There’s More!

- The Freight Plan is on-going and will pick up steam once the Rail Plan is finalized
  - Will build on Rail Plan information
  - Will add information on truck, air, and water modes
Thank You

For more information on the Vermont Rail Plan Update, visit [vtrans.vermont.gov/rail/reports](http://vtrans.vermont.gov/rail/reports) or contact Zoe Neaderland at Zoe.Neaderland@vermont.gov or (802) 793-2778.

For more information on the Vermont Freight Plan Update, visit [vtrans.vermont.gov/planning/freight](http://vtrans.vermont.gov/planning/freight) or contact Dave Pelletier at Dave.Pelletier@vermont.gov or (802) 595-9675.